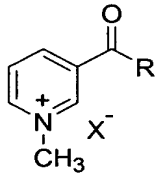
AMENDMENTS TO THE CLAIMS

Please cancel claims 1-56 and add new claims 57-85:

1-56 (Canceled)

57. (New) A method for treatment or prevention of conditions or diseases associated with dysfunction of vascular endothelium, oxidative stress and/or insufficient production of endothelial PGI_2, comprising administration to a subject in a need thereof a therapeutically effective amount of a quaternary pyridinium salt of formula I:



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wherein R is NH_2, CH_3 or $N(H)CH_2OH$, and X is a pharmaceutically acceptable counterion.

58. (New) The method in accordance with claim 57, wherein said dysfunction of vascular endothelium, oxidative stress, and/or insufficient production of endothelial prostacyclin PGI_2 coincides with hypercholesterolemia, hypertriglyceridemia or low HDL levels.

59. (New) The method in accordance with claim 57, wherein said condition or disease is atherosclerosis.

60. (New) The method in accordance with claim 57, wherein said condition or disease is an acute cardiovascular event associated with atherosclerosis, sudden cardiac death, acute coronary syndrome, unstable coronary artery disease, myocardial infarct, the necessity of coronary angioplasty (PCI), coronary-aortal by-pass surgery (CABG), ischemic stroke, or peripheral circulation revascularization.

61. (New) The method in accordance with claim 57, wherein said condition or disease is atherosclerosis in patients with chronic coronary disease, ischemic cerebrovascular episode or artherosclerosis of the extremities, including obliterans.

62. (New) The method in accordance with claim 57, wherein said condition or disease is selected from the group of risk factors for atherosclerosis comprising: hypercholesterolemia, arterial hypertension, smoking, hyperhomocysteinaemia, insulin resistance, diabetes, menopause, aging, obesity, mental stress, infection or inflammatory states, periodontal diseases, rheumatoid arthritis, allograft vasculopathy or nitrate tolerance.

63. (New) The method in accordance with claim 57, wherein said condition or disease is dyslipidemia, hypercholesterolemia, hypertriglyceridemia or hypertriglyceridemia associated with low plasma level of HDL.

64. (New) The method in accordance with claim 57, wherein the condition or disease is thrombosis that is not related directly with atherosclerosis, thrombosis associated with implantation of metallic vascular prostheses (stents), coronary-aortal by-pass surgery (CABG), any type of surgery with extracorporeal circulation, hemodialysis, or venous embolic disease.

65. (New) The method in accordance with claim 57, wherein said condition or disease is selected from the group consisting of chronic cardiac failure, pulmonary hypertension, microvascular diabetic complications, diabetic neuropathy, nephrotic syndrome, chronic renal failure, adults respiratory distress syndrome cystic fibrosis, chronic obstructive pulmonary disease (COPD), erectile dysfunction, Stein-Leventhal syndrome, sleep apnea, systemic lupus erythematosus, sickle cell anemia, non-specific inflammatory bowel diseases, gastric or duodenal ulcers, glaucoma, chronic liver disease, primary amyloidosis and neurodegenerative diseases.

66. (New) The method in accordance with claim 65, wherein said neurodegenerative disease is selected from vascular dementia, Alzheimer's disease and Parkinson's disease.

67. (New) The method in accordance with claim 65, wherein said disease is gastric or duodenal ulcer.

68. (New) The method in accordance with claim 65, wherein said condition or disease is chronic obstructive pulmonary disease.

69. (New) The method in accordance with claim 65, wherein said condition or disease is chronic liver disease, in particular viral hepatitis.

70. (New) The method in accordance with claim 57, wherein the pyridinium salt of formula I is administered orally.

71. (New) The method in accordance with claim 57, wherein the pyridinium salt of formula I is administered parenterally.

72. (New) The method in accordance with claim 57, wherein the pyridinium salt of formula I is administered to the airways by inhalation.

73. (New) The method in accordance with claim 57, wherein said condition or disease is chronic obstructive pulmonary disease and the medicament is in the form for inhalation administration.

74. (New) The method in accordance with claim 57, wherein R is a CH_3 group.

75. (New) The method in accordance with claim 57, wherein R is an NH_2 group.

76. (New) The method in accordance with claim 57, wherein R is an $N(H)CH_2OH$ group.

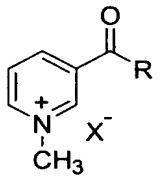
77. (New) The method in accordance with claim 57, wherein the pyridinium derivative is administered together with cardiovascular agent.

78. (New) The method in accordance with claim 57, wherein said quaternary pyridinium salt is a 1-methylnicotinamide salt and said condition or disease is hypercholesterolemia, hypertriglyceridemia or low HDL levels.

79. (New) The method in accordance with claim 57, wherein said quaternary pyridinium salt is in the form of a composition with a pharmaceutically acceptable carrier.

80. (New) The method in accordance with claim 57, wherein said quaternary pyridinium salt is in the form of a composition with a nutritional preparation.

81. (New) A method for enhancing prostacyclin levels in mammals, which comprises oral administration of an effective amount of quaternary pyridinium salt of formula I:



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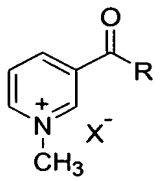
wherein R is NH_2, CH_3 or $N(H)CH_2OH$, and X is a pharmaceutically acceptable counterion.

82. (New) The method in accordance with claim 81, wherein said quaternary pyridinium salt is in the form of a composition with a pharmaceutically acceptable carrier.

83. (New) The method in accordance with claim 81, wherein said quaternary pyridinium salt is in the form of a composition with a nutritional preparation.

84. (New) The method in accordance with claim 81, wherein insufficient production of endothelial prostacyclin is age-related.

85. (New) Quaternary pyridinium salts of formula I:



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wherein R is NH_2, CH_3 or $N(H)CH_2OH$, and X is a counterion acceptable for consumption, for use in oral diet supplementation.